ATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7440

Petition of Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc., for amendment of their certificates of public good and approvals required under 10 V.S.A. §§ 6501-6504 and 30 V.S.A. §§ 231(a), 248 & 254, for authority to continue after March 21, 2012, operation of the Vermont Yankee Nuclear Power Station, including the storage of spent-nuclear fuel

BRIEF OF THE VERMONT DEPARTMENT OF PUBLIC SERVICE

July 17, 2009

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I. INTRODUCTION

On March 21, 2012, the authorization for operation of the Vermont Yankee Nuclear Power Station (Vermont Yankee or VY) by Entergy Nuclear Vermont Yankee, LLC (ENVY) and Entergy Nuclear Operations, Inc. (ENO, and together with ENVY the Petitioners) will expire unless extended by the Public Service Board (Board).[1] In order to obtain Board authorization for continued operation of VY, the Petitioners must demonstrate: 1) compliance with the criteria of 30 V.S.A. § 248(b); 2) that continued operation of the facility will promote the general good of Vermont pursuant to 30 V.S.A. § 248(a)(2); and, 3) that Petitioners are competent to operate the facility under 30 V.S.A. § 231(a).[2]

In this brief, the Department sets forth the reasons why Petitioners have failed to meet their burden under 30 V.S.A. § 248(a)(2) to demonstrate why continued operation of VY would promote the general good. Additionally, the Department sets forth a number of recommended conditions which are necessary in order for Petitioners to comply with the requirements of 30 V.S.A. §§ 231(a) and 248(b).

[1] In order to continue operating the plant, Petitioners also need approval from the Vermont State Legislature, 30 V.S.A. § 248(e)(2), as well as the Nuclear Regulatory Commission.

[2] In reviewing the Petitioners' case, the Board must also consider "the objectives of the [Act 160] studies to be arranged by the department, the objectives of the [Act 160] public engagement process as a whole, and the general and specific issues that the [Act 160] studies are required to address . . ." as specified in 30 V.S.A. § 254(b). 30 V.S.A. § 254(c).

II. BACKGROUND AND PROCEDURAL HISTORY

On March 3, 2008, Petitioners filed a petition with supporting testimony and exhibits seeking Board approval for authority to continue operations at VY for 20 years beyond the current expiration date until March 21, 2032.[3] A prehearing conference was held on July 10, 2008 in the Public Service Board's hearing room on the third floor at 112 State Street in Montpelier, Vermont. The primary purpose of the prehearing conference was to establish a schedule for the proceeding. On July 22, 2008 the Board issued a prehearing conference memorandum and schedule that established dates through the initial filing of testimony by the Department and intervenors on October 15, 2008. Of primary concern to the Board was the lack of a proposed purchase power contract and its consequent inability to determine the overall reasonableness of a schedule for the entire proceeding that had been proposed by the Department.[4]

A status conference was held on October 1, 2008 for the purpose of establishing a schedule for the remainder of the Docket. On October 7, 2008 the Board issued a procedural order establishing a schedule which included technical hearings running from May 18, 2009 through June 3, 2009, with initial and reply briefs to be filed on June 24, 2009 and July 6, 2009 respectively.[5] While the overall schedule established by the October 7, 2008 Order was adhered

[3] *See* Petition generally.

[4] Order of 7/22/08 at 3-4.

[5] Order of 10/7/08 at 3-4.

to with only minor adjustments, the briefing dates were extended by agreement of the parties at the end of the technical hearings, such that initial briefs would be due July 17, 2009 and reply briefs would be due August 7, 2009.[6]

In addition to Petitioners, statutory parties and intervenors included the Department, the Vermont Agency of Natural Resources, Green Mountain Power Corporation (GMP) and IBEW local No. 300 (IBEW),[7] Windham Regional Commission (WRC), TransCanada Hydro Northeast Inc. (TC Hydro NE), Town of Brattleboro (Brattleboro), the New England Coalition, Inc., d/b/a New England Coalition - Opposing Nuclear Pollution (NEC), and Central Vermont Public Service Corporation (CVPS),[8] the Conservation Law Foundation (CLF), the Vermont Public Interest Research Group (VPIRG), the Vermont Electric Cooperative, Inc. (VEC), and Associated Industries of Vermont (AIV).[9]

Public hearings were conducted by the Board as follows: 1) September 15, 2008 at the Vernon Elementary School on Governor Hunt Road in Vernon, Vermont;[10] 2) September 22,

[6] Tr. 6/3/09 at 151 (statement of counsel). Within the briefing schedule, parties were also asked to address a request from the Vermont Public Interest Research Group (VPIRG) for the Board to take administrative notice of information related to economic impacts from a loss of coolant in the spent fuel pool and a memorandum in support of the request. *Id*. at 152 (Chairman Volz).

[7] Order of 7/22/08 at 5.

[8] Order of 8/13/08 at 4.

[9] Order of 9/5/08 at 4. Intervention requests by Richard Czaplinski and John Greenberg were denied. *Id*. at 4-5.

[10] Notice of Hearing dated 8/29/08.

2008 utilizing 15 Vermont Interactive Television sites;[11] 3) April 30, 2009 at Marlboro College Whittemore Theater on South Road in Marlboro, Vermont;[12] and, 4) May 13, 2009 utilizing 15 Vermont Interactive Television sites.[13]

Following completion of the public hearings, technical hearings were held as scheduled in the Public Service Board hearing room on the third floor at 112 State Street in Montpelier, Vermont between the dates of May 18, 2009 and June 3, 2009.

III. GENERAL FINDINGS

1. Vermont Yankee is a 620 megawatt electric MW(e) capacity boiling water reactor located on approximately 125 acres of land along the Connecticut River in the Town of Vernon, Vermont, about five miles southeast of Brattleboro. Exh. ENVY Cross-Jacobs-1 at 1-2.

2. Vermont Yankee began commercial operation in November of 1972 licensed at a net electric capacity of 514 Mw. A power uprate approved by both the Board and the NRC resulted in the increase in capacity to 620 MW(e). Id.

3. The plant was originally constructed and owned by the Vermont Yankee Nuclear Power Corporation (VYNPC), which in turn was owned by 13 New England and northeast electric utilities. Id. at 1-3.

4. On June 13, 2002, the Board issued a Certificate of Public Good (CPG) pursuant to 30

[11] *Id*.

[12] Notice of Hearing dated 4/9/09.

[13] *Id*.

V.S.A. § 231(a) for ENVY to own and ENO to operate the Vermont Yankee facility until March 21, 2012. Continued operation beyond that date requires issuance of either a new or renewed CPG from the Board. Docket No. 6545, *Investigation into General Order No. 45 Notice filed by Vermont Yankee Nuclear Power Corporation re: proposed sale of Vermont Yankee Nuclear Power Station to Entergy Nuclear Vermont Yankee, LLC, and related transactions*, Order of 6/13/02 at 165, ¶¶ 7-8.

5. On July 31, 2002, ENVY purchased VY from VYNPC for $180 million and received the reactor complex, nuclear fuel, inventories, decommissioning fund and related real estate. Id.

6. Coincident with the sale from VYNPC to ENVY, ten of the original 13 owners liquidated their holdings in VYNPC, leaving CVPS, GMP and Central Maine Power Company as the remaining stockholders of VYNPC. Id.

7. On March 3, 2008, the Petitioners submitted their request with the Public Service Board seeking authorization to continue operation of VY for an additional 20 years through March 21, 2032. Petition at 2.

8. ENVY and ENO are indirect subsidiaries of Entergy Corporation. There are three intermediary affiliates between Entergy Corporation and ENVY. They are Entergy Nuclear Vermont Investment Company, Entergy Nuclear Holding Company #3, and Entergy Nuclear Holding Company. There is one intermediary affiliate between Entergy Corporation and ENO: Entergy Nuclear Holding Company #2. Exh. DPS-MM-3, Attachment 2.

9. There exists the potential for a corporate restructuring whereby Entergy Corporation will restructure ownership of its non-utility, wholesale-nuclear fleet under a company called Enexus. Specifically, Enexus will acquire a 100% indirect controlling interest in ENVY and 50% indirect controlling interest in ENO, through a 50-50 joint venture with Entergy Corporation. Thayer pf. 3/8/08 at 9-10; tr. 5/21/09 at 189 (Thayer); see also tr. 5/21/09 at 9-10 (statement of counsel).

10. In the event the restructuring takes place, ENO will still hold the operating license for VY and the Chief Nuclear Officer for all of the wholesale units involved in the restructuring will be the same. Lastly, the personnel that operate the VY Station will continue to be the same. Accordingly, the managerial and technical qualifications of ENO used to run and support VY since the 2002 purchase will not change in any material way. Thayer pf. 3/8/08 at 10.

IV. 30 V.S.A. § 231(a)

1. Managerial and Technical Qualifications

Findings

11. Entergy Corporation derives its managerial and technical skills from its experience operating the second largest nuclear fleet in the United States, both in terms of number of plants and megawatt hours generated. Entergy Corporation and its affiliates own and operate eleven nuclear-power plants: the VY Station, Units 2 and 3 at Indian Point, the James A. FitzPatrick Station in New York, the Pilgrim Nuclear Station in Massachusetts, the Palisades Nuclear Station in Michigan, Arkansas Nuclear One Units 1 and 2 in

Arkansas, the Waterford and River Bend Stations in Louisiana and the Grand Gulf plant in Mississippi. In addition, an Entergy Corporation affiliate manages operation of the Cooper Nuclear Station in Nebraska. Thayer pf. 3/3/08 at 9.

12. The same managerial and operational qualifications that have been applied to operation of the VY station since Entergy purchased the plant in 2002 will be applied to its operation during any extended period of operations. See Finding No. 10.

13. A number of significant operational problems have occurred at the plant during Entergy's period of ownership. Among those incidents are: 1) the 2004 electrical fault and fire that caused severe damage to the low voltage bushing box on the top of the main transformer; 2) the structural failure of Cooling Tower (CT) 2-4 in August of 2007; 3) the distribution pipe leak in CT 1-1 in July of 2008; and, 4) the CT slip joint leakage in September of 2008. Exh. DPS-Panel-1, App. G at ii-iii.

14. A Comprehensive Reliability Audit (CRA) of VY conducted by Nuclear Safety Associates in consultation with the Department of Public Service found that the plant had historically been operated in a reliable fashion, but that significant issues needed to be addressed to ensure ongoing reliability into a period of extended operations. In particular, the audit's principal conclusions identified: 1) problems in plant procedure quality, 2) human performance issues, 3) certain system and technical area issues, 4) delays in adopting industry equipment reliability best practices, 5) ineffective use of the change management process, and 6) shortcomings in contractor oversight as areas that need to be addressed and resolved to ensure continued reliable operation of the plant. Exh. DPS-Panel-1 at 2-7.

15. Plant procedures, while technically correct, utilize formatting that does not readily support Human Performance tool usage, such as place keeping and data collection on each page. The formatting is not up to current industry standards relative to linkage to other procedures and lacks specific guidance at times, leaving steps open to interpretation and judgment by workers. As a result, there have been plant events related to procedure quality or procedure use and adherence. Id. at 2.

16. Previously, ENVY had a stable workforce. However, in recent times there has been an influx of new employees, especially in the Operations Department and the Maintenance Department Electrical and Instrument and Controls sections. These newer individuals will be more dependent upon detailed procedure guidance. Id.

17. ENVY recently developed an action plan to improve station procedures which will supersede the procedure efforts that were previously ongoing in the Maintenance Department. Id.

18. Once the full scope of procedure upgrades is identified, a detailed schedule will need to be developed to determine which procedures will be completed in order of priority. A detailed change management plan must be developed to help manage the overall process and ensure its completion, especially in light of previous procedure projects being aborted. Id.

19. Human Performance does not meet expectations at ENVY because the organization continues to have issues in this area in spite of previous training. Some examples are procedure use and compliance, high OSHA Recordables, and Foreign Material Exclusion

(FME) and Housekeeping practices, and an infrequent use of Human Performance Error Review (HPER) in the face of a high number of Human Performance events. Id. at 3.

20. Poor Human Performance can impact plant reliability in numerous ways: failure to follow procedures, inadequate FME which causes equipment problems or fuel failures, or an individual making a mistake which causes a loss of generation are all examples of Human Performance issues. Id.

21. System and technical issues include degrading performance of the condenser and related plant chemistry issues, a potentially inadequate CT inspection program, and the lack of a ready status spare transformer that can operate at 100% of the plant's capacity. Id. at 3-4.

22. Delays in moving to industry and fleet-wide standardization have resulted in issues with respect to poor performance under the Equipment Reliability Index, staffing levels for the System and Component/Program Engineering Groups, and system health and performance monitoring. Id. at 5-6.

23. ENVY's inadequate use of the change management process has slowed the plant's transition from a stand-alone generator to part of a fleet system of plants and slowed the accomplishment of other potentially beneficial changes at the station. Id. at 6.

24. Inadequate contractor oversight was identified as a cause in both the 2007 and July 2008 CT incidents. Id. 7.

25. The CRA team from Nuclear Safety Associates consisted of approximately 30 well-qualified individuals, and the audit consumed approximately 10,000 person hours once time for DPS personnel and other consultants is factored in. Tr. 5/28/09 at 158-60

(Panel).

26. The audit included vertical assessments of the following six systems: residual heat removal (RHR); high pressure coolant injection (HPCI); switchyard transformer, condensate, cooling towers, and surface water. The audit also covered numerous additional systems under horizontal evaluations of seven technical focus areas and a management and organizational performance assessment. One of the technical focus areas, large motors, cuts across many of the plants systems, so in looking at large motors the audit team touched on many other systems. Id. at 151-52 (Panel).

27. The audit also looked at the programs and processes associated with the audited systems, such as preventative maintenance, performance improvement, continuous improvement, equipment repair and history processes. Each of these programs and processes concerns all of VY's other systems, meaning when you look at the programs for the six systems subject to the vertical assessment, you are looking at the overall programs for all of the other plant systems. Id. at 152-53 (Panel).

28. The audit also included a benchmarking study to see how VY's performance compared with other utilities in the United States and sister plants identified specifically for the CRA. Id. at 152 (Panel).

29. Lastly, the audit also included a management and organizational review which looked at how Petitioners monitor performance, what goals are set, and what performance indicators are measured. Id. at 152-53 (Panel).

30. In total, the combined effect of the various components of the audit is a comprehensive

view of how Petitioners manage, maintain and address issues associated with all systems at VY. Id. at 153 (Panel).

31. Given the comprehensive nature of the audit, it is not necessary to include additional systems for vertical assessment to reach a fully-informed decision on the potential reliability of VY during a period of extended operations. Id. at 152-53 (Panel).

32. Through the passage of Act 189 of the 2007-2008 session, the legislature also established a Public Oversight Panel (POP) to oversee and review the work performed by the Department's consultants. The POP concluded that the scope of work to be performed by the audit team met the intent of Act 189. Exh. DPS-UV-2.

33. The POP, in its own report presented to the legislature, concurred with the conclusions and recommendations of the Department's consultants regarding potential for continued reliable operation of VY. The POP's report placed special emphasis on management issues, the Equipment Reliability Index, the condenser, leakage rates in the Main Steam Isolation Valves, flow accelerated corrosion, preventive maintenance issues, staffing turnover issues, use of operating experience and ENVY's corrective action process. Exh. DPS-12 at iii-iv, 31-33, 42.

34. The plant can continue to operate reliably under the oversight of Petitioners provided the recommendations in the CRA, as emphasized in the recommendations in the POP report, are appropriately implemented and the issues identified therein resolved prior to March 21, 2012, with the exception of the condenser. Tr. 6/2/09 at 201-02 (Vanags); tr. 5/28/09 at 199-200 (Vanags).

35. The tubes in the condenser at VY will be sleeved during the next refueling outage, prior to the end of the current license extension period, to reduce the possibility of leaks and decrease challenges to reliability. Tr. 5/26/09 at 117 (Colomb).

36. The condenser will be replaced prior to the end of its useful life. Currently, Petitioners expect that to happen in the 2013-2014 time frame. However, Petitioners believe they should be allowed flexibility to exercise discretion to extend that date. Id. at 187-88 (Colomb).

37. Deferral of condenser replacement runs the risk of reaching a point where the replacement could become uneconomic and Petitioners may decide not to replace it at all. Id. at 188-89 (Colomb).

38. VY's designated spare transformer is not in "ready status" to perform its function should the main transformer fail, nor is it sufficient as a long term solution to a main transformer problem. The designated spare could be relied upon for no more than a single refueling cycle. Id. at 156-57 (Colomb).

39. If the spare transformer proves to be unreliable, it could take approximately 18 months to obtain a replacement transformer. Id. at 65 (Colomb).

40. Installation of the designated spare transformer would require VY to reduce its output by approximately 20%. Id. at 156 (Colomb).

41. An effective verification process must be put in place to ensure timely and satisfactory implementation of the CRA and POP report recommendations. Ex. DPS-12 at 42. Such a verification process must be open and transparent, should include use of a third-party

consultant by the Department, and require that Petitioners demonstrate compliance with all recommendations through filings with the Board. All compliance filings should also be served on all parties which would have a chance to review and comment to the Board, including requests for evidentiary hearings on specific compliance issues. Vanags pf. 2/11/09 at 22; tr. 6/2/09 at 201-02 (Vanags).

42. Absent reliable operation of the plant the benefits promised by Petitioners in support of their request for extended operations become questionable at best. Vanags pf. 4/24/09 at 7.

Discussion

For VY to operate reliably through a period of extended operations, it is necessary that the recommendations of the CRA and POP report be fully-implemented as a condition of Board approval of the petition in this proceeding.[14]

VY will be operated and managed by a group of experienced and qualified individuals who are capable, if certain steps are taken, of operating the plant in a reliable manner. On the whole, the station has been run reliably as evidenced by the healthy capacity factors realized since ENVY purchased it. However, a number of incidents over the past seven years, including the transformer fire and multiple cooling tower problems, demonstrate that improvements to the management and operations of the plant are needed to ensure Vermont consumers will not be negatively impacted. The CRA identified numerous areas where plant procedures, operations and management are

[14] A list of the CRA recommendations is included with this brief as Appendix A and a list of the POP recommendations is included as Appendix B.

deficient to ensure reliability throughout an extended period of operations. The report of the Public Oversight Panel concurred with the findings, conclusions and recommendations in the CRA, and added special emphasis to certain of the areas identified by the CRA as in need of remediation.

Reliable operation of the plant is critical if Vermont is to realize the potential benefits that extended operation could provide, including taxes, jobs, a favorable power contract and revenue sharing under the Docket 6545 MOU. If the state cannot be assured of realizing these benefits, Petitioners' basis for requesting extended operations is severely undermined and becomes questionable. It is critical therefore that the Board require Petitioners to implement the recommendations in the CRA and POP report. With respect to the condenser, it is necessary to assign a completion date for its replacement. If no such date is assigned, the very real possibility exists that Petitioners will defer its replacement to a time when it is more economic not to replace it and either run the plant with its functions impaired or simply close the plant early. With respect to the spare transformer, Petitioners must bring it into "ready status" so that it can be placed into service quickly if needed, and must have an action plan in place to obtain a replacement transformer that is capable of long-term performance in the event they intend to rely on the current designated spare.

Accordingly, the Department recommends the following conditions be included in any CPG issued for a period of extended operations:

> Petitioners shall implement all recommendations in the CRA and POP report prior to March 21, 2012, with the exception of condenser replacement. The condenser shall be replaced no later than December 31, 2014. Petitioners shall demonstrate

that the recommendations have been effectively implemented through written filings with the Board copied to all parties. All parties will be provided with an opportunity to comment on the adequacy of each such filing. Petitioners must make the filings in a timely fashion so that compliance can be determined prior to March 21, 2012.

Petitioners shall have a designated spare transformer in ready status prior to March 21, 2012 capable of maintaining an output of at least 80% of the plant's rated capacity. In the event Petitioners intend to rely on the current designated spare transformer to fulfill this requirement, they must have an action plan in place to promptly obtain a replacement transformer capable of long-term operation through 2032.

2. Financial Capacity

a. Plant Operations

Findings

43. The primary financial resource for Petitioners during an extended period of operations is revenue from the sale of the plant's output. Thayer pf. 3/3/08 at 20.

44. In the event of an unplanned outage, Petitioners have and will continue to maintain production-interruption insurance to maintain a revenue stream during shutdown. The current policy would provide $3.5 million per week of coverage up to a maximum of $435 million. Id. at 20.

45. Since purchasing VY, ENVY has also maintained two separate $35 million credit agreements. The first is with Entergy International Holdings, Ltd. LLC (EIHL) the primary purpose of which is to pay costs between an unplanned, premature shutdown of the plant and access by ENVY to the decommissioning trust fund. The second agreement is with Entergy Global, LLC and functions as a revolving credit facility to fund ENVY's needs for working capital. Id. at 20-21.

46. ENVY also currently benefits from a $60 million guaranty from Entergy Corporation to support the station during a bridge period between premature shutdown and access to 20% of the decommissioning trust funds in the event money is not available from the two other credit agreements. Id. at 22.

47. In the event the Enexus restructuring is approved and implemented, Petitioners plan to replace the two $35 million agreements with a new $700 million support agreement. According to Petitioners, this agreement will provide ENVY with access to working capital. Id. at 21. Additionally, the $60 million guaranty from Entergy Corporation would be turned into a letter of credit in the same amount from an independent financial institution with an S&P rating of at least "A." Id. at 11.

48. A third party letter of credit provides an enhanced level of assurance that the funds will be available as compared to a corporate guaranty. Id. at 11.

49. The $60 million dollar guaranty should be converted to a third party letter of credit even if the restructuring does not occur, and its amount should be adjusted to account for inflation through 2012 and every five years thereafter. Vanags pf. 2/11/09 at 18.

50. It is not clear that the $700 million credit agreement that will replace the two existing $35 million agreements can actually be used to support reliability-based capital expenditures at VY. See Finding Nos. 51 through 57.

51. The purpose of the $700 million support agreement is to provide financial assurances to the NRC in reviewing the proposed Enexus transaction. Tr. 5/20/09 at 110 (Thayer).

52. The support agreement states that money is available for "Operating Expenses" and "NRC

Requirements." However, the phrase "Operating Expenses" is defined by the agreement to mean the "expenses of maintaining the Facilities safely and protecting the public health and safety . . .". Exh. DPS-10 at 1.

53. The NRC has exclusive authority over matters of safety at nuclear plants. Tr. 5/20/09 at 110 (Thayer).

54. Release of funds under the agreement requires the approval of the NRC and a request for fund release can be denied by the NRC. Id. at 111-12 (Thayer).

55. No third party may rely on the support agreement as a guaranty that any particular expense at VY will be paid for or any other obligation met. However, the NRC may rely on the support agreement in determining the financial qualifications of the Enexus operating subsidiaries. Id. at 112; Exh. DPS-10 at 2.

56. The money available under the support agreement is subject to requests for disbursement by a total of six Enexus operating subsidiaries, one of which would hold the license to operate VY. Exh. DPS-10 at 1. The aggregate amount of liability under the agreement at any one time cannot exceed $700 million. Id. at 2.

57. If the available funds are used up under the support agreement and VY has a reliability problem that interrupts production, Petitioners have no other proposal for accessing capital to address such a reliability problem. Tr. 5/20/09 at 117-19 (Thayer).

Discussion

Provided certain conditions are imposed, the Board should conclude that Petitioners have

sufficient financial resources to operate the plant reliably into an extended period of operations.

The primary financial resource for Petitioners during an extended period of operations is revenue from sales of the plant's output. Accordingly, it is crucial that the Department's recommendations in the CRA, as well as those in the POP report, be implemented in a timely fashion. Implementation of these recommendations will help ensure the plant runs at a high level of reliability, which in turn will provide the revenues necessary to implement ongoing maintenance and to address any problems should they arise. Failure to implement these recommendations in a timely fashion could reduce reliability and threaten the most important financial resource Petitioners have: cash flow from operations. As explained below, this is particularly critical if the Enexus restructuring occurs.

Other financial resources are available, but the bulk of them are not available to address ongoing operational issues. Both the $60 million guaranty from Entergy Corporation and the $35 million credit agreement with EIHL are to be used to fund a bridge period between premature shutdown (i.e. a situation where a safety or reliability problem could not be resolved, due to financial constraints or otherwise) and Petitioners' ability to access decommissioning trust fund money. The other $35 million credit agreement with Entergy Global is apparently available to fund working capital requirements. However, Petitioners did not file any testimony on why this amount, found adequate by the Board for operations through 2012, would continue to be adequate for an additional 20 years of operation until 2032.

In the event the Enexus restructuring occurs, the $60 million guaranty would be converted to a third party letter of credit to fund a bridge period between premature shutdown and access to

the decommissioning trust fund. However, the two $35 million credit agreements would be abolished and replaced by the $700 million support agreement. While on its face this may sound like an improvement, it is actually unclear whether the new support agreement could be accessed for capital expenses related solely to reliability. The support agreement is available to meet "Operating Expenses" but defines that phrase to mean the expenses of maintaining the plant safely and protecting public health and safety. Additionally, disbursements under the agreement require NRC approval and the agreement itself was put into place to satisfy the NRC that the operating affiliates have sufficient financial resources to safely operate the six nuclear generating units. Given the agreement's definition of "Operating Expenses" and the NRC's reliance on the agreement to ensure safe plant operation, it is less than clear that disbursements for matters solely related to reliability would be approved by the NRC. Lastly, a total of six plants can access the funds under the agreement. This raises the possibility that the fund could be depleted sometime prior to the end of an extended operations period, particularly if Petitioners are correct that both reliability and safety concerns can be addressed with funds from the agreement.

Given the uncertainty surrounding the availability of funds for addressing issues solely related to reliability, it is imperative that the Board adopt the Department's proposed condition on implementation of the CRA and POP recommendations to help ensure the reliability necessary to preserve a steady flow of revenue from plant output. Additionally, the Board should include the following condition if it issues a CPG in this proceeding:

> Petitioners shall convert the existing $60 million guaranty from Entergy Corporation into a third party letter of credit from an independent financial institution with an S&P rating of at least "A." Additionally, the amount shall be

adjusted for inflation through 2012 and every five years thereafter.

b. Spent Nuclear Fuel

Findings

58. The production of electricity through nuclear fission in a Boiling Water Reactor such as Vermont Yankee uses enriched uranium pellets that are assembled into fuel rods and then fuel assemblies. The fission process generates heat which in turn boils the water in the reactor vessel to generate steam that turns the turbine-generator thereby generating electricity. In general, the rods are productive for approximately 54 months. Roughly every 18 months, Vermont Yankee conducts a refueling outage in which approximately one-third of the fuel assemblies are replaced with new assemblies. The removed assemblies are spent nuclear fuel (SNF). Hoffman pf. 3/3/08 at 3.

59. SNF is a radioactive waste that poses threats to human health and the environment if appropriate measures are not taken for its safe storage and disposal. Mullett pf. 11/14/08 at 6.

60. SNF contains 95 percent of the radioactivity from all civilian and military sources combined. Generally, the radioactive isotopes in spent fuel are considered dangerous to human health and the environment for at least ten and, in some cases, as many as twenty half-lives. That could be as long as 500,000 years. Id.

61. The SNF contains radioactive materials that must be managed in a way to keep the SNF cooled and provide shielding for the radioactive material. There are two methods of

storing SNF that have been licensed and approved by the NRC: wet storage in a spent-fuel pool and dry storage in NRC-approved casks or canisters. Hoffman pf. 3/3/08 at 3.

62. Vermont Yankee maintains a spent-fuel pool and has an Independent Spent Fuel Storage Installation (ISFSI) for SNF. At this time 5 casks are loaded an on the ISFSI. Id. at 6; tr. 5-19-09 at 112-13 (Hoffman).

63. The existing ISFSI at Vermont Yankee could accommodate 36 casks containing 2448 spent nuclear fuel assemblies. That is not enough to store all of the SNF from operation through March 2012 if there were no spent fuel pool. Approximately 20 additional casks containing 1300 some odd assemblies would be needed. For operation until 2032, there would need to be up to an additional 20 casks for about 1700 fuel assemblies. Tr. 5/19/09 at 116 (Hoffman).

64. If a CPG is granted to Petitioners, a second ISFSI will need to be constructed at some point in the 20 year CPG period to accommodate any slippage of the shipment of SNF in the best of scenarios. Mullett pf. 4/24/09 at 7.

65. The Nuclear Waste Policy Act of 1982 established a program for developing a geological repository for the permanent disposal of up to 70,000 metric tons of SNF and high-level waste. The Act was modified in 1987 and under those amendments, the only candidate site the U.S. Department of Energy (DOE) may consider for a permanent high-level waste repository is at Yucca Mountain, Nevada (Yucca Mountain). If Yucca Mountain cannot be licensed, DOE must return to Congress for further instructions. Mullett pf. 11/14/08 at 7.

66. Yucca Mountain was scheduled to be completed so that DOE could begin accepting SNF beginning in 1998. However, numerous political, technical, financial and legal problems have significantly delayed progress on Yucca Mountain. DOE did not even submit a license application for Yucca Mountain to the NRC until June of 2008. Id. at 8.

67. On March 5, 2009, DOE Secretary Chu told Congress that Yucca Mountain is ñno longer an optionò for long-term storage of high-level nuclear waste and instead proposed that existing SNF inventories remain on-site at the nuclear plants which generated them while a new, comprehensive plan for long-term storage is developed and implemented. A blue ribbon commission is to be formed to conduct a comprehensive review of the alternatives to Yucca Mountain and recommend a new plan based on that review. Mullett pf. 4/24/09 at 3-4.

68. To avoid additional litigation with the utility industry, DOE is proceeding with the licensing process for Yucca Mountain but with reduced funding levels for the project. Id. at 4.

69. Given the highly uncertain fate of Yucca Mountain, ENVY should re-evaluate now whether 2082 is still a reasonable assumption for the latest date by which to expect all SNF to have been removed from the Vermont Yankee site. On-site storage of SNF could potentially be for one hundred years from the initiation of dry cask storage at Vermont Yankee. Mullet pf. 5/24/09 at 4-5.

70. Virtually all of ENVYôs exposure to increased cost risk in the TLG decommissioning cost estimates is a result of uncertainties with the SNF management. Neither the license

termination activities (cleaning up and removing the radioactivity at the site) nor the site restoration costs vary by much in any of the TLG cost estimate scenarios but the spent fuel management costs account for over a $250 million swing in potential costs. Mullett pf. 5/24/09 at 7; Cloutier pf. 3/23/09 at 7; tr. 5/18/09 at 193 (Cloutier).

71. Petitioners propose to offset their post-shutdown spent fuel management expense with damages to be awarded in the future as a result of ongoing litigation with the DOE over its failure to live up to its commitments under the Standard Contract, but these damages are uncertain at best and should not be counted upon. Cloutier pf. 3/23/09 at 11-12; Thayer pf. 3/23/09 at 5; Mullett pf. 5/24/09 at 9-11.

Discussion

The management of SNF is a huge driver of the ultimate costs of decommissioning and dismantling the Vermont Yankee site either beginning in 2012 or 2032, yet it is also the cost facing the most uncertainty. Yucca Mountain is still the chosen site for a geological repository for SNF based on the current Waste Policy Act, but the current administration has indicated that Yucca Mountain is not an option and has drastically cut the funding to the program. Additionally, DOE Secretary Chu has stated that existing SNF inventories should remain on-site at the nuclear plants which generated them while a new, comprehensive plan for long-term storage is developed and implemented. In the TLG decommissioning cost study, the cost of SNF management accounted for over a $250 million swing in costs in four key scenarios.

Because of the uncertainty and widely varying costs associated with the management of SNF, it is imperative that Petitioners revisit and re-evaluate its SNF management plan regularly

and with various contingencies explored. Before the federal government took Yucca Mountain off the table, the SNF management plan was to send the waste to Yucca Mountain. Now Petitioners need to plan for such contingencies as long-term on-site storage and the creation of a second ISFSI earlier than originally anticipated. Based on the lack of any geological repository on the horizon, contingency plans could entail on-site storage for as long as one-hundred years. Certainly after the blue ribbon commission makes findings and recommendations, Petitioners would need to re-evaluate their SNF management plan. These changes in the landscape should be taken into account using the recommended condition for adequate decommissioning funding described in the next section. Since the NRC determination of decommissioning adequacy will only take into account the radiological decontamination of the site, the Board process needs to look beyond what is included in the federal decommissioning regulatory scheme and include SNF management in the determination of decommissioning adequacy.

Petitioners also argue that they we need not worry about the costs of SNF management because of ENVY will use future DOE reimbursements to pay for SNF management costs. However, the Department does not believe that such future payments should be counted toward SNF management until such damages are paid, and then ENVY sets aside such damages in an account dedicated to its post-shutdown SNF management costs.

Although liability for costs incurred to date has been established, damages have not. The Department expects that ENVY would recover *most* of its SNF management costs associated with power generated through 2012, although there can be no certainty at this time as to the amount or percentage of ultimate recovery. As to damages for SNF management costs associated

with power generated from 2012 to 2032, there is no clear legal basis to assume that ENVY will be able to collect any damages for that time period. As so well stated by Witness Mullett who is an attorney:

> The legal basis for the ENVY claim against DOE for breach of the Standard Contract relating to VYNPS spent fuel is the D.C. Circuit Court of Appealsô decision in *Northern States Power Co. v. Department of Energy*, 128 F.3d 754 (D.C.Cir.1997). Of particular importance, the ENVY claim is for partial breach of the Standard Contract. ñLike other nuclear utilities who entered into a Standard Contract, Plaintiffs have moved for summary judgment on the issue of Defendant's partial breach of the Standard Contract resulting from the DOE's failure to begin disposing of SNF.ò 72 Fed. Cl. at 244-45. ñIf the breach is partial only, the injured party may recover damages for nonperformance only to the time of trial and may not recover damages for anticipated future nonperformance.ò *Indiana Michigan Power Co. v. U.S.*, 422 F.3d 1369, 1376 (Fed. Cir. 2005). Instead, partial breach plaintiffs must pursue future damages in future suits. *Id.* Moreover, to recover future damages in future suits for future SNF storage costs, ENVY must show: (1) the damages were reasonably foreseeable by the DOE at the time the Standard Contract was entered in 1983; (2) the partial breach is a substantial causal factor of the damages; and (3) the damages are shown with reasonable certainty. *Id.*, at 1373.
>
> Here, ENVY will face significant hurdles for all three elements it must show. First, DOE will have a strong argument that the federal courts should not require the agency to have foreseen in 1983 that an assignee of a Standard Contract transferred in 2002 would increase rather than reduce its spent fuel storage costs by renewing in 2012 a plantôs expiring operating license for an additional twenty ears. Second, DOE will have an even stronger argument that it was not the agencyôs partial breach of the Standard Contract but an independent business decision by ENVY which has caused the storage costs for spent fuel generated during the VYNPS license extension. Third, it will be very difficult for ENVY to meet its burden to show, with reasonable certainty, how the post-2012 world as late as 2082 would have been different in the absence of DOEôs partial breach in 1998. *See, e.g., Indiana Michigan Power Co.*, 422 F.3d at 1376 (DOE not liable for ñspeculativeò damages or costs incurred primarily for business reasons other than mitigating DOEôs partial breach) *and Yankee Atomic Elec. Co.*, , 536 F.3d 1268, 1274 (Fed. Cir. 2008) (ñIn any event, an acceptance rate based on assumption and approximation is not enough to support a finding of causation under the substantial factor test.ò) In this context, it must also be recognized that, at bottom, the issue before the federal courts will be whether the customers of a merchant nuclear generator should pay higher rates or all American citizens should pay

higher taxes in order to cover the costs of storage for VY SNF generated after 2012. Mullett pf. 4/24/09 at 9-10.

Finally, if ENVY does receive any future DOE damage awards, the money could be counted toward the cost of SNF management if the money was placed in a dedicated fund for SNF management costs. At that point, the periodic reviews described in the next section of the brief could account for those funds and Petitioners future payments would be reduced. All in all, the Departmentôs recommendation in the subsequent section can take into account the variations and contingency challenges presented by SNF management. However, Petitioners will have to be conservative in their contingency planning to capture the true costs of SNF management.

c. Decommissioning

Findings

72. Decommissioning of nuclear facilities is necessary to protect the general public from the hazards presented by any radioactive materials that would otherwise remain at the facility at the end of its operating life. Nuclear Regulatory Commission regulations require that each operator of a nuclear power plant plan for the eventual decommissioning of the plant and ensure that adequate funding will be available to decommission the facility. Decommissioning as defined by the NRC means to remove nuclear facilities safely from service and to reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license. Exh. DPS-WRJ-2 at 1.

73. Three decommissioning alternatives are acceptable to the NRC:

DECON: defined as "the alternative in which the equipment, structures, and portions of a facility and site containing radioactive contaminants are removed or decontaminated to a level that permits the property to be released for unrestricted use shortly after cessation of operations."

SAFSTOR: defined as "the alternative in which the nuclear facility is placed and maintained in a condition that allows the nuclear facility to be safely stored and subsequently decontaminated (deferred decontamination) to levels that permit release for unrestricted use." Areas of the plant are generally accessible to conduct maintenance as needed and monitor the condition of plant systems and structures. Decommissioning is generally required to be completed within 60 years.

ENTOMB: is defined as "the alternative in which radioactive contaminants are encased in a structurally long lived material such as concrete; the entombed structure is appropriately maintained and continued surveillance is carried out until the radioactive material decays to a level permitting unrestricted release of the property." Areas of the plant that have been entombed are not accessible to plant personnel. Decommissioning under this scenario must be completed within 60 years.

Id. at 1-2.

74. When the NRC reviews the adequacy of a decommissioning fund, it looks at the fund in relation to radiological decommissioning only, and does not assess adequacy with respect to additional state-related costs such as site restoration. Tr. 5/19/09 at 57 (Cloutier).

75. When the NRC reviews the adequacy of a decommissioning fund it will find the proposed use of SAFSTOR for an extended period of time to allow the fund balance to grow an acceptable alternative to DECON. Tr. 5/21/09 at 148-50 (Thayer).

76. When the NRC reviews the adequacy of a decommissioning fund, it utilizes a number derived from a formula as the estimated costs of decommissioning against which it judges the fund's adequacy. At least with respect to VY, that derived number is significantly lower than the estimated costs of decommissioning in the TLG study. The most recent

NRC-derived amount is $513.8 million while the amount in the most recent TLG estimate ranges from $732.9 to $983.8 million. Exh. NEC-Cross-7 at Attachment 4; tr. 5/21/09 at 184 (Thayer).

77. Approximately five years before a nuclear plant operator plans to terminate plant operations, the operator must submit a preliminary decommissioning cost estimate to the NRC. This cost estimate is typically an update of biannual filings on estimated decommissioning costs and funding that each operator files with the NRC. Exh. DPS-WRJ-2 at 3.

78. The primary driver of cost increases in decommissioning the VY station is spent fuel management costs, which in turn are driven by the date by which the Department of Energy (DOE) removes spent fuel from the site. Jacobs pf. 11/14/08 at 4.

79. The date by which the DOE will remove spent fuel the VY site is uncertain. See Finding Nos. 65 to 69.

80. Given the uncertainties associated with an NRC determination of fund adequacy, it is necessary for the state to establish its own process for ensuring that the plant will be decommissioned in a timely fashion in 2032, without reliance on SAFSTOR or ENTOMB, assuming Board approval of the 20-year extended operations period. Lamont pf. 2/11/09 at 25.

81. The fund adequacy review process should include periodic decommissioning, spent fuel management and site restoration cost updates and a review of fund adequacy taking into account the actual balance and a reasonable projected real rate of return. The fund

adequacy review should take place every 2.5 years beginning in 2012 and should utilize the most recent, updated, site-specific study prepared by TLG. Petitioners must also submit a new detailed, site-specific decommissioning cost study every five years. If the fund is shown to be on a trajectory that is adequate for full-funding by March 2032, no additional actions would be required until the next adequacy review. If the fund was shown to be inadequate, then contributions that would place the fund on a proper trajectory would be made on an annual basis, subject to adjustment during the next review period. Lamont pf. 4/24/09 at 6-11.

82. The fund adequacy review process should be structured similar to post-CPG compliance reviews that the Board has utilized in the past when reviewing projects under section 248. The petitioners make the required filings with the Board with copies to statutory parties and intervenors. The Board would then establish a deadline for comments by the parties. In the event the Board determined, based on its own review of the materials or the comments of parties, that a formal review is warranted, then a schedule would be developed at that time. Id. at 11.

83. Pursuant to NRC regulations, Petitioners are allowed to assume no more than a 2% real rate of return on investments for the decommissioning trust fund. Exh. DPS-WRJ-2 at 9. Accordingly, in performing the fund adequacy reviews, Petitioners should not be allowed to assume more than the NRC maximum of 2% growth in the fund value going forward. Historical performance will be taken into account by utilizing the actual fund balance as the starting point at the time of the review. Tr. 6/3/09 at 105-06 (Lamont).

84. A parental guaranty is also needed to ensure decommissioning is initiated no later than 2032. The fund adequacy reviews are designed to ensure a fully-funded decommissioning trust by 2032 based on continued plant operations through that time. If the plant shuts down prematurely there will no longer be operating revenue to make any required annual contributions to the fund, by definition resulting in a potential shortfall in 2032. The parental guarantee is needed to cover this potential shortfall to avoid a period of SAFSTOR. Lamont pf. 4/24/09 at 9.

Discussion

The Board must impose certain conditions upon Petitioners to ensure full funding of the decommissioning trust fund so that it is adequate to commence and complete decommissioning promptly after a 2032 shutdown, including radiological decommissioning, spent fuel management and site restoration costs.

As described in the findings above, the NRC's approach to determining decommissioning trust fund adequacy should not be the standard by which the Board judges fund adequacy. The NRC will find a fund adequate if it is expected to cover the costs of radiological decontamination, assuming a 2% real rate of return, sufficient to release the site for unrestricted use. The NRC is not concerned with lower levels of site radiation or with site restoration costs.[15] Additionally, the NRC will allow the use of SAFSTOR for a period of up to 60 years for the fund to grow to

[15] For the Department's recommendations on reduced radiation levels and site restoration, see the discussion on orderly development of the region in section V of this brief.

sufficient levels and the site to be decommissioned.[16] Lastly, the NRC bases its funding adequacy review not on the site-specific costs developed by TLG, but on a number derived from an NRC formula. Currently, the NRC derived number is $513.8 million while the amount in the most recent TLG estimate ranges from $732.9 to $983.8 million. Given the divergence of interests between the state's goals and the NRC's goals, it is clear a state review process is warranted. Accordingly, the following condition should be included in any CPG the Board may issue in this proceeding:

> Petitioners shall file a detailed report every 2.5 years, beginning in March 2012, demonstrating the adequacy of the decommissioning trust fund to meet up-to-date decommissioning cost estimates, including decommissioning, site restoration and spent fuel management costs, using the most recent site specific decommissioning estimates available and an analysis of historic and projected growth of the decommissioning trust fund. In making projections of fund growth Petitioners shall assume a real rate of return that reflects historic growth but in no event shall the assumed return exceed 2%. Petitioners shall file a new site specific cost study no less frequently than every five years. Such studies shall be updated with relevant, specific inflation factors for fund adequacy reviews taking place between the filing of full cost studies. Copies of the same shall be served on all statutory parties and intervenors to this proceeding, and the Board will provide an opportunity for comments from parties and shall make a determination as to the adequacy of the fund. Based on the comments of parties or on its own motion, the Board may require evidentiary hearings before making its determination. To the extent that the fund is found to be insufficient to commence prompt decommissioning in 2032 and to cover all costs of site restoration and spent fuel management, an annual contribution amount shall be determined to achieve adequacy by 2032 and shall deposited into the fund by Entergy each year until the next fund adequacy review. The need for or amount of annual payments will be determined or adjusted at each subsequent review.

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[16] Decommissioning under the SAFSTOR alternative must be completed within 60 years. Since decommissioning activities take approximately 10 years, the fund is allowed up to approximately 50 years to reach sufficiency. Tr. 5/18/09 189-90 (Cloutier). For the Department's recommendation on prompt decommissioning based on a 2032 shutdown date, see the discussion on orderly development of the region in section V of this brief.

The Petitioners' objection to this proposed condition is without merit and should be rejected by the Board. According to witness Thayer, the fund is on a trajectory to be adequate for decommissioning, site restoration and spent fuel management costs by 2032. If Mr. Thayer is correct, then the funding reviews proposed by the Department will not result in the need for any annual contributions. If, however, he is incorrect, then any shortfall will be corrected early in the process and Vermont can avoid the necessity of a SAFSTOR period. Also, once a shortfall is corrected and fund performance is back on track, the periodic reviews in the Department's proposal will account for that no less frequently than every 2.5 years.

Additionally, the Board should require a parental guaranty to cover any shortfall in decommissioning funding come 2032. This is particularly important if the plant is forced into a premature shutdown, eliminating operating revenues as a source of contributions to the fund. It will also act as a buffer in the event the TLG decommissioning cost studies are not as accurate as anticipated.[17] Such a guaranty will ensure that no SAFSTOR period is needed at end of operation in 2032. Accordingly, the following condition should be included in any CPG the Board may issue in this proceeding:

> Petitioners shall obtain a parental financial guaranty to cover the full costs of decommissioning, spent fuel management and site restoration in the event the decommissioning fund is inadequate to address these costs, and ENVY and ENO have insufficient assets to cover any such shortfall.[18]

[17] See tr. 6/3/09 at 106-07 (Lamont).

[18] Mr. Lamont's original proposed condition specified that the guaranty come from Entergy Corporation. If the Enexus transaction is not approved or does not occur for some other reason, the Department believes that Entergy Corporation is the appropriate source for the guaranty. If the Enexus transaction does take place, then the Board should require the new owning and operating entities to obtain security that is equivalent in terms of the security provided by a

Again, Petitioners' objections should be rejected by the Board. Similar to the funding review proposal, if Mr. Thayer is correct that the fund is on a trajectory to cover all costs by 2032, the exposure to the parent company is limited, and should grow smaller each year as the fund grows. And, in any event, the backstop provided by the guaranty is necessary for Petitioners to demonstrate the financial wherewithal not only to own and operate the plant, but to responsibly remove it from service, decommission the facilities and decontaminate the site, manage spent fuel issues and restore the site to an appropriate condition commencing in 2032 in a timely manner. The ultimate dismantling of the plant, restoration of the site, and management of spent fuel is a critical risk area to be mitigated to protect the public interest as part of the Petitioners responsibilities for being allowed to operate the plant for an additional twenty years.

V. CRITERIA UNDER 30 V.S.A. § 248(b)

30 V.S.A. § 248(b)(1) Orderly Development of the Region

Findings

85. Provided appropriate conditions are imposed on a period of extended operations, continued operation of VY will not unduly interfere with the orderly development of the region, due consideration being given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. 30 V.S.A. § 248(b)(1). This finding is supported by Finding Nos. 86 to 95 below.

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parental guaranty from Entergy Corporation. Tr. 6/3/09 at 45 (Lamont).

86. The VY Station's continued operation will not unduly interfere with the orderly development of the region, taking into account the land-use policies and the recommendations of the Town of Vernon and the Windham Regional Commission, provided that, upon cessation of commercial operations the plant is promptly and properly decommissioned and the site restored to an appropriate state so that it can be utilized consistent with local and regional planning goals. Dodson pf. 3/3/08 at 40; tr. 5/26/09 at 35-36 (Buchanan); tr. 6/3/09 at 41-42 (Lamont).

87. Per NRC regulations, a nuclear generation facility site qualifies for release for unrestricted use when the site radiation levels, net of background, are no higher than a total effective dose equivalent of 25mrem per year, with no more than 4mrem per year of that total coming from the groundwater pathway. However, when decommissioning a site, an operator must apply the As Low As Reasonably Achievable (ALARA) principle so it is possible that a decommissioned site will actually have radiation levels lower than the NRC maximum of 25mrem per year. Vanags pf. 2/11/09 at 11; tr. 6/2/09 at 83 (Vanags).

88. Petitioners' current decommissioning study from TLG includes a cost of $9.1 million to remediate soil contamination. This figure is based on known contamination from the time the plant was purchased in 2002 and includes a significant contingency factor. No major incidents have occurred since the plant was purchased that would render the assumed amount of soil contamination and its related contingency unreliable. Tr. 5/20/09 at 49-50 (Thayer); tr. 5/21/09 at 11-12 (Thayer); Thayer pf. 2/11/09 at 7.

89. Given the required application of the ALARA principle and Petitioners' inclusion of a cost

item in the TLG study for known soil contamination that includes a contingency, the potential incremental costs associated with decommissioning to a level of 10mrem year with no more than 4mrem per year of that total coming from the groundwater pathway (the 10/4 level) are reasonable given the benefits of the lower threshold. Vanags pf. 4/24/09 at 2-4.

90. Petitioners should be required to decommission the plant and decontaminate the site to the 10/4mrem level recommended by the Department when it ceases to be used for nuclear generation purposes, even if the site is then used for some other commercial or industrial purpose consistent with the orderly development of the property. This is consistent with the terms of the Docket 6545 MOU, which allows deferral only of site restoration to accommodate non-nuclear commercial or industrial uses. Exh. DPS-9 at 3.

91. NRC decommissioning regulations do not include a requirement for site restoration. Tr. 5/19/09 at 57 (Cloutier).

92. Petitioners committed to site restoration after the site is no longer used for nuclear generation or some other commercial or industrial use consistent with the orderly development of the property. Thayer pf. 3/23/09 at 4; Exh. DPS-9 at 2-3.

93. Site restoration is defined in the Docket 6545 MOU as "removal of all structures and, if appropriate, regrading and reseeding the land." Exh. DPS-9 at 2.

94. Removing the existing structures to a level of three feet below grade is a reasonable means to implement site restoration. Actually removing each foundation to its full depth will add significant costs to the project, create increased safety risks to workers, and yield little

incremental benefit. Tr. 6/2/09 at 236-38 (Vanags).

95. Removing existing structures to a depth of three feet below grade will not interfere with orderly development of the region because a purchaser of the site would account for the existing foundations in the purchase price and would not necessarily need to remove them in their entirety depending on the intended use of the site. Tr. 6/3/09 at 41-42 (Lamont).

Discussion

Provided Vermont Yankee is promptly decommissioned beginning in 2032, and the site decontaminated to the 10/4 level recommended by the Department, and provided site restoration is undertaken once the site ceases to be used for commercial or industrial purposes, an extended period of operations will not cause undue interference with the orderly development of the region.

1. Prompt decommissioning.

Petitioners must promptly decommission the plant beginning in 2032 in order to avoid undue impacts on orderly development. If the plant does not enter prompt decommissioning, it will likely be placed into SAFSTOR, rendering a significant portion of the site essentially unusable for other purposes for up to 60 years. Additionally, there will be a precipitous drop off in jobs if the plant is placed in SAFSTOR that will not be present if the plant enters prompt decommissioning.[19]

Petitioner's request for flexibility to place the plant into SAFSTOR if necessary should be

[19] Tr. 5/26/09 at 35-36 (Buchanan).

rejected by the Board. Entergy could not give any reason why such an option would be necessary, leaving one to assume that the real reason behind the requested flexibility would be to allow time for the decommissioning trust fund to grow if it proves to be inadequate in 2032, something the Department's decommissioning fund recommendations are designed to prevent.[20] If a situation should arise, other than a shortfall in the decommissioning fund, that requires the plant be placed in SAFSTOR, the Petitioners can submit a request to the Board asking that the prompt decommissioning requirement be waived and demonstrate why such a waiver would be consistent with the orderly development of the region.

The Board should also reject Petitioners' characterization that its position is consistent with the terms of the Docket 6545 MOU. Petitioners incorrectly claim that *decommissioning* can be deferred under that agreement if the site is being utilized for a non-nuclear commercial or industrial purpose. The MOU allows a deferral only of *site restoration* if the site is used for non-nuclear commercial or industrial purposes. The MOU specifically contemplates decommissioning occurring even if the site is reused for non-nuclear purposes. "Completion of Decommissioning shall be deemed to have occurred for purposes of this MOU notwithstanding that ENVY may choose to re-use the site, and portions of existing structures, systems and components, and that spent fuel is not removed from the site."[21] Site restoration is treated as a separate activity from

[20] Vanags pf. 4/24/09 at 4-5.

[21] Exh. DPS-9 at 3.

decommissioning and the Board should reject Petitioners' characterization of the MOU.[22]

If the Board were to accept Petitioners' position that decommissioning can be deferred if the plant is used for some non-nuclear commercial or industrial purpose, it would allow Petitioners to utilize a period of SAFSTOR to cover a shortfall in the fund, thereby immunizing the parent corporation from the effects of a parental guaranty or equivalent security, simply by maintaining an active presence in one of the office buildings on the site. Such a result is unacceptable and the Board should reject Petitioners' request for discretion to rely on SAFSTOR in 2032.

2. Decontamination levels.

The Board should require Petitioners to decontaminate the site to the 10/4 level recommended by the Department because it will provide enhanced benefits to orderly development by making the property more attractive, without imposing undue expense on Petitioners.

The Board should reject Petitioners claim that the true expense of decontaminating to the 10/4 level cannot be known until a site survey is performed for three reasons. First, the petitioners are required to apply the ALARA principle under NRC regulations which could actually result in Petitioners achieving the 10/4 standard without any incremental cost. Second, the most recent cost study done by TLG includes a cost of $9.1 million to remediate soil

[22] Even if Petitioners' characterization was correct, it wouldn't be controlling. The Docket 6545 MOU provisions that address this issue are all based on the assumption that the plant ceases operations in 2012 while the Board in this proceeding must determine what is appropriate for operations beyond that date.

contamination. According to witnesses for Petitioners, this figure is based on known contamination from the time the plant was purchased in 2002, includes a significant contingency factor and no major incidents have occurred since the plant was purchased that would render the assumed amount of soil contamination, its related contingency or the cost figure unreliable. Third, industry experience has shown that the costs of decontaminating to this level are reasonable when compared to the overall costs of decommissioning. The approximate incremental cost figure for Maine Yankee to cleanup to the 10/4 level is $11 million.[23] If one assumes that the TLG cost study is accurate, then decommissioning and spent fuel management costs are over $900 million,[24] meaning the potential incremental costs to reach the 10/4 level would likely be in the neighborhood of 1%. Given the enhanced benefits of the decreased radiation levels, this is an entirely reasonable figure in the overall cost structure.

3. Site restoration.

The Petitioners have agreed to site restoration following decommissioning and cessation of use of the site for non-nuclear commercial or industrial purposes. The Department agrees this is necessary to avoid undue interference with the orderly development of the region.

The Department recommends that site restoration include removal of all above ground structures and all below ground structures to a depth of at least three feet below grade, followed by regrading and reseeding where necessary or appropriate. Requiring that all foundations be

[23] Vanags pf. 4/24/09 at 3.

[24] *See* Finding No. 63.

removed in their entirety adds significant costs to decommissioning, raises the risk of worker accidents and yields little in the way of incremental benefit since the vast majority of contaminated materials will need to be removed to achieve the 10/4 decontamination level recommended by the Department.

The existence of non-contaminated, sub-surface foundations should not unduly interfere with redevelopment or reuse of the site. A buyer of the site will be well aware of its previous use as a nuclear facility, if by no other means than searching the land records to develop a picture of the status of title to the property. Additionally, the Board's order regarding what has to be removed and what may remain behind will be public record. A purchaser would therefore be aware of any remaining underground structures and their presence would be accounted for in the purchase price if indeed their presence impacted the value of the land based on its intended use. There is no record evidence sufficient to conclude that leaving foundations in place at three or more feet below grade will interfere with redevelopment or reuse of the property.[25]

In order to ensure that the continued operation of the facility does not unduly interfere with the orderly development of the region, any CPG issued in this proceeding should contain the following conditions:

> Petitioners shall promptly initiate decommissioning no later than cessation of commercial operations in 2032. Site restoration may be deferred if necessary to accommodate non-nuclear commercial or industrial purposes following cessation

[25] The Board has already accepted a two feet below grade standard as reasonable. *See*, Docket 7156, *Petition of UPC Vermont Wind, LLC, for a Certificate of Public Good, pursuant to 30 V.S.A. §248, authorizing the construction and operation of a 52 MW wind electric generation facility, consisting of 26 wind turbines, and associated transmission and interconnectionfacilities, in Sheffield and Sutton, Vermont,* Order of Aug. 8, 2007 at Finding 334.

of commercial operations. Petitioners may obtain a waiver of the prompt decommissioning requirement if they can demonstrate to the Board that a waiver is necessary to accommodate a non-nuclear commercial or industrial purpose and that such waiver will not unduly interfere with the orderly development of the region. A shortfall in the decommissioning trust fund balance shall not be advanced in support of a waiver request.

At the time of decommissioning, all structures shall be removed to a minimum of three feet below grade. Rubbilization shall not be used. There shall be an enhanced cleanup level of 10 mrem per year through all pathways, including within that 4 mrem per year through the groundwater pathway. If the site is not to be used as a new commercial or industrial site in keeping with the orderly development of the region, the land should be regraded and reseeded with no visible structure other than necessary for dry fuel storage. Specifically, the following shall be adhered to by Petitioners in site restoration:

A. Definitions. Unless the context otherwise indicates, the following terms have the following meanings.

i. "Average member of the critical group" means a member of the critical group who is subjected to the most likely exposure situation based on prudently conservative exposure assumptions and parameter values within the model calculations.

ii. "Critical group" means the group of individuals reasonably expected to receive the greatest exposure to residual radioactivity for any applicable set of circumstances.

iii. "Total effective dose equivalent" has the same meaning as in Title 10 Code of Federal Regulations, Section 20.1003, as in effect on January 1, 2000.

B. Radiation dose standard. The site at which the decommissioning of the Vermont Yankee Nuclear Power Station has been completed must meet the following standards:

i. The residual radioactivity distinguishable from background radiation results in a total effective dose equivalent to an average member of the critical group of not more than 10 millirems, or 0.10 millisievert, per year, including that from groundwater sources of drinking water; and

ii. The residual radioactivity distinguishable from background radiation in groundwater sources of drinking water results in a total effective dose equivalent of not more than 4 millirems, or 0.04 millisievert, per year to the average member of the critical group.

C. Rubbilization. The practice known as "Rubbilization" where demolition concrete is used to back fill excavations and foundations shall not be permitted. Demolition concrete will be removed from the site and shipped to an appropriate disposal facility.

30 V.S.A. § 248(b)(2) Need for Present and Future Demand for Service

Findings

96. Continued operation of VY will meet a need for present and future demand for service

which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy-efficiency and load management measures, including but not limited to those developed pursuant to the provisions of sections 209(d), 218c, and 218(b) of Title 30. This finding is supported by Finding Nos. 97 to 101 below.

97. Vermont Yankee is a baseload facility with a low variable cost, making it likely that it will operate during most, if not substantially all, of the hours in a year. Lamont pf. 2/11/09 at 5.

98. Even under the most optimistic projections for Demand Side Management (DSM) impacts, a significant residual load remains to be served by generation projects. Continued operation of the Vermont Yankee plant will increase the supply of energy available for dispatch to meet this load, thereby lowering the clearing price of energy relative to a system that does not have VY operating. Id.

99. In its 2007 annual report, Efficiency Vermont calculated the cost of DSM measures installed to be 2.4 cents per kWh; in 2006, these costs were estimated to be 3.6 cents per kWh. Although the precise operating costs incurred by VY are not known, figures published by the Nuclear Energy Institute show typical nuclear production costs to be on the order of 1.8 cents per kWh. Id. at 6.

100. As a baseload facility, VY power would still be dispatched and used even if additional DSM or energy efficiency measures were implemented. Tr. 6/3/09 at 110 (Lamont).

101. A similar argument can be made for the capacity supplied by the plant. The supply and

demand balance and the clearing price of capacity bid into the market is determined through the Forward Capacity Market ("FCM") auction process which occurs annually. While VY's participation in the market does not set the clearing price for capacity, it does lower the need for new capacity resources which should translate into a lower clearing price in the auction. Lamont pf. 2/11/09 at 5-6.

Discussion

Continued operation of VY meets the requirements of 30 V.S.A. § 248(b)(2) because it will help meet a demand for energy in Vermont and the New England region that cannot otherwise be offset through energy conservation programs and measures and energy-efficiency and load management measures. Additionally, as a merchant plant VY is not required to implement any energy efficiency or energy conservation programs, nor can it implement load management programs as it has no retail customers.[26]

30 V.S.A. § 248(b)(3) System Stability and Reliability

Findings

102. In Docket 6812, the Board required ENVY to make certain modifications to the VY station to ensure that the power uprate would not have an adverse effect on system stability and reliability, Those modifications have been implemented and operation under uprate conditions has not caused any adverse impacts. Thayer pf. 3/3/08 at 27-28.

103. No changes to the operational characteristics are planned as part of continued operations.

[26] Docket 7156, Order of Aug. 8, 2007 at Finding 54.

Tranen pf. 3/3/08 at 13.

Discussion

Based on the above findings, the Board should conclude that extended operations do not pose a risk of adverse effects to system stability and reliability.

30 V.S.A. § 248(b)(4) Economic Benefit to the State

Findings

104. VY's continued operation will result in an economic benefit to the state and its residents. This finding is supported by Finding Nos. 105 to 108 below.

105. Financial benefits to the state will accrue from two primary sources; tax revenues net of burdens imposed on governments and value added economic activity resulting from plant operations. Two additional potential sources of economic benefit are the Revenue Sharing Agreement (RSA) from Docket 6545 and a possible purchase power agreement (PPA) between VY and Vermont's utilities. Nagle pf. 2/11/09 at 3.

106. Based on specified assumptions including 20-years of additional operation, estimates of the total impacts from all four sources range from a low case scenario of $906.2 million to a high case scenario of $2,628.3 million in net present terms. The base case scenario is $1,895.8 million. Thomas pf. 11/14/08 at 5.

107. Tax revenues net of burdens to the state and local governments are estimated as follows in net present value terms: extreme low case, $105.1 million; base case, $143.3 million; extreme high case, $169.6 million. Id.

108. Value added economic activity, the largest contributor to economic benefit, is estimated as

follows in net present value terms: extreme low case, $642.1 million; base case, $755.5 million; extreme high case, $868.8 million. Id.

109. Economic benefits from the RSA are estimated as follows in net present value terms: extreme low case, $159.0 million; base case, $587.8 million; extreme high case, $908.8 million. Id.

110. Economic benefits from a favorable PPA with Vermont utilities are estimated as follows in net present value terms: extreme low case, $0; base case, $178.2 million; extreme high case, $296.9 million. Id. Additionally, if a discount from market rates exists for ratepayers of Vermont utilities, this can be expected to create additional economic activity as a result of lower electric bills. Impacts from this activity are estimated as follows in net present value terms: extreme low case, $0; base case, $231 million; extreme high case, $385 million. Id.

111. However, to date no PPA has been filed with the Board so no economic value can be attributed to this possibility. Tr. 6/3/09 at 77 (Lamont).

112. The RSA was negotiated as part of a Memorandum of Understanding (Sale MOU) between the Department and Entergy as part of Docket 6545 and creates a potential for payments to Vermont Yankee Nuclear Power Corporation (VYNPC) if the price for the power sold by VY exceeds a specified strike price. All monies from VYNPC paid to its Vermont owners - Green Mountain Power Corporation and Central Vermont Public Service Corporation - would then flow to the ratepayers of those companies through their alternative regulation plans or through traditional rate-making principles. Both

companies have publicly committed to ensuring such money would return to ratepayers. Lamont pf. 2/11/09 at 8-9.

113. There are three areas of uncertainty which could effect the value of the RSA that would ultimately be passed on to ratepayers. The first is whether the RSA's definition of "Excess Revenue" includes revenue received from capacity payments to the plant. The second is the uncertainty of the future market price upon which the value is ultimately derived. The third revolves around whether the RSA payments to VYNPC will be allocated among its current owners or some broader group. Id. at 12. A fourth area of uncertainty rests on the assumption that the plant will run reliably for the entire 10-year period of the RSA, since the value is based on the output of the plant that is sold. The Department's assumption that the plant should continue to run reliably is predicated on the Board conditioning any approval in this proceeding on the recommendations contained in the Act 189 Comprehensive Reliability Assessment. Id. at 10, fn. 7.

114. In a scenario where market prices are low, capacity payments are not included and the sharing takes place among all the original VYNPC owners instead of the three current owners, the value could be quite small and conceivably zero. Id. at 12-13.

115. VY believes that capacity revenues are not included in the calculation of excess revenues, even though an Entergy spokesperson has publicly quoted estimated RSA values in support of relicensing that included revenues from capacity. Exh. DPS-DL-1 at 2; tr. 5/20/09 at 60-61 (Thayer).

116. Exclusion of capacity revenues from the calculation of excess revenue has a significant

impact on the value to be realized under the RSA. Chernick pf. 5/26/09 at 7.

117. The intent of the RSA was to protect Vermont ratepayers in the event that changing market conditions altered the future value of the plant from assumptions made at the time of the sale to Entergy. Accordingly, it makes no sense to devise a protection plan which protects against alterations of only one component of that value of the plant. The intent of the language in the Sale MOU was to create a convenient mechanism to roll the energy and capacity revenues into a single term and express them as a single number to facilitate a calculation under the agreement. This is made clear in the third subparagraph of paragraph 4 of the Sale MOU, which defines VY revenues as based on the actual price for energy and capacity sold by the plant. Lamont pf. 2/11/09 at 14.

118. Petitioners could structure the sale of energy and capacity from the plant in a manner that would result in the price paid to Petitioners never exceeding the strike price; for example, by selling to a marketing affiliate at below market rates, by engaging in transactions where value other than money was paid to the plant, or by arranging third party transactions. Tr. 5/21/09 at 33-40 (Thayer); Exh. DPS-MAM-3 at 9.

119. Because Petitioners could structure transactions that would avoid the generation of excess revenues under the RSA, even where market prices exceed the strike price, it is necessary to include value for structured sales that reflects the actual value attributed to the transaction, regardless of whether that value is paid directly to the plant owners and operators. Tr. 5/21/09 at 41-42 (Thayer).

120. An audit process must be implemented to make sure that the actual value attributable to

sales of the plant's output is included in the calculation of excess revenue. Id. at 43-44 (Thayer).

121. VY ranks among the top 60 private and public employers in Vermont. Within Windham County, it is in the top five employers. Thomas pf. 11/14/08 at 3-4.

122. As of May 11, 2009 VY employed 504 full-time Entergy employees on site and 138 full-time contractors on site, for a total site employment of 642 persons. Tr. 5/20/09 at 48-49 (Thayer).

123. Closure of the plant in 2012 could have ancillary impacts on the local and regional economy. For example, if Entergy moved its employees after decommissioning, the local real estate market would likely see a depression in home values with a relatively high number of homes entering the market in a short period of time. That, in turn, might be enough to suppress new home construction for some period of time, having adverse impacts on the construction sector as well. Further, the economy would lose the value of family members of VY employees that also worked in local jobs. On the other hand, if employees are not moved, it could create at least a temporary additional burden on local governments and lead to a temporary increase in local unemployment rates. Thomas pf. 11/14/08 at 6-7.

124. Economic activity associated with decommissioning the plant will occur regardless of when the plant shuts down. Therefore, this should not be considered an impact that is created by virtue of extended plant operation. Id. at 4.

125. If the plant enters a period of SAFSTOR upon cessation of commercial operations instead

of proceeding to prompt decommissioning, the negative economic impacts would occur in a precipitous rather than a gradual fashion, and would be more difficult for the local and regional economies to absorb. Tr. 5/26/09 at 31-33 (Buchanan).

126. Petitioner's stated intention to rely on a transformer that can only support operations at 80% of the plant's rated capacity has economic implications. If there was a favorable PPA with Vermont utilities and the spare transformer had to be relied upon, those utilities would lose a portion of their output allocation under the contract and would need to replace it with purchases on the open market. Additionally, during the first ten years of extended operations, if the plant was forced to rely on the spare transformer the reduced output would reduce the amount of excess revenues under the RSA, assuming the strike price was being exceeded at that time. Lamont pf. 4/24/09 at 12-13.

127. Maintaining full-core discharge is vital to Vermont utilities and their ratepayers because if the reactor vessel or internals require inspection or work requiring full-off load of the fuel but there is insufficient space available in the spent fuel pool, the plant would not generate electricity, causing higher costs to ratepayers, while adequate room is being made by moving fuel from the spent fuel pool to dry casks. Vanags pf. 4/24/09 at 5.

128. Petitioners oppose a full-core discharge capability requirement but have not explained what instances there may be that would prevent them from maintaining full-core discharge. Petitioners have stated their intent to run the plant with such a capability throughout the extended operations period. Id.

Discussion

Continued operation of VY will result in a substantial economic benefit to the state and its residents by virtue of value-added economic impacts and revenues to state and local governments above the costs and burdens created by the presence of the plant. Additionally, while its ultimate value is uncertain, there will likely be some economic benefit attributable to the RSA. However, no economic benefit can be attributed to a PPA unless and until one is negotiated and filed with the Board.

With respect to the RSA, the Board should confirm the Department's understanding that capacity revenues are included in the calculation of excess revenue based on the language in the Sale MOU. The Sale MOU states in relevant part:

Sharing Excess Revenue After License Extension: In the event that ENVY extends the operation of the VYNPS pursuant to extension of its NRC license, ENVY agrees to share with VYNPC fifty percent of the "Excess Revenue" for ten years commencing on March 13, 2012.

"Excess Revenue" equals the excess of VYNPS's revenues determined by taking VYNPS's average energy price (dollars per MWh) during the fiscal year less the "Strike Price" (dollars per MWh). If the average energy price is greater than the "Strike Price," that difference (in $/MWh) times the total MWh sold from VYNPS by ENVY during the fiscal year commencing on March shall be the "Excess Revenues." Entergy agrees to provide the data necessary to verify this calculation.

VYNPS revenues are based on actual price for energy and capacity sold by VYNPS during such fiscal year whether to VYNPC, its sponsors, other PPA purchasers or to market.[27]

Per the terms of the Sale MOU, Excess Revenue is the "excess of VYNPS's revenues" and

[27] Exh. DPS-9 at 4.

VYNPS revenues are "based on actual price for energy and capacity sold by VYNPS . . .".[28] Additionally, the intent behind the RSA was to protect Vermont ratepayers in the event that the value of the plant during an extended operations period exceeded assumptions made about future value at the time of the sale. The plant's value is derived from the sale of both energy and capacity. If the intent is to protect ratepayers from losing out on unanticipated future value, it makes little sense to only include one component of that value. Therefore, even if the Board finds ambiguity in the language of the Sale MOU itself, that ambiguity should be resolved in favor of including capacity revenues in the calculation of excess revenue based on the intended purpose of the RSA.

Accordingly, any CPG issued in this proceeding should contain the following condition:

> Petitioners shall include revenues from the sale of VY capacity in the calculation of excess revenues under the Revenue Sharing Agreement.

Additionally, the Board must ensure more generally that appropriate value is utilized in calculating excess revenues under the RSA. Because shared revenues are based on amounts paid to the station, Petitioners could lower or avoid the obligation to share revenues by structuring output sales so that the value they receive for plant output never exceeds the strike price. For example, Petitioners could sell all output to a marketing affiliate below the strike price and then have the affiliate resell the power at market price. Similarly, VY output could be "sold" not for money but for some other exchange of value, or through a third party that resulted in no payments directly to the plant. Accordingly, any CPG issued in this proceeding must be conditioned to

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[28] *Id.*

capture all value attributable to the output of the plant, whether that value is paid directly or indirectly to Petitioners or takes the form of some monetary substitute. The Department recommends the following:

> Only arms-length (non-affiliate), commercially reasonable power sales transactions shall be utilized to calculate the unit revenue received for output sold by the plant for purposes of calculating Excess Revenue under the RSA. Structured sales whereby value attributable to the sale of plant output is not paid directly to the plant, or where a monetary substitute is accepted as consideration by the plant in exchange for delivery of output, shall not be considered commercially reasonable sales under this condition. Petitioners shall share data showing actual revenue from sales and VYNPC or purchasing Vermont utilities may challenge the reasonableness of any transaction based on the data received from Petitioners. The Board shall resolve any disputes over such a challenge.

With respect to the spare transformer, the Department's concerns have only increased since the filing of its written testimony. During cross examination, witness Colomb acknowledged that the designated spare was replaced preemptively because of indications that it might actually fail. He further acknowledged that it is not yet in a state where it could be pressed quickly into service should the main transformer fail, and that even if it was, it was capable of supporting only about 80% of the plant's rated output. Lastly, he stated that the designated spare was not a viable long-term solution and could only be relied on for up to a single fuel cycle.[29]

Because of the potentially significant economic impacts associated with a main transformer failure, ranging from the need to purchase replacement power for an indefinite period

[29] Tr. 5/26/09 at 65, 156-57 (Colomb). The limited time for reasonable reliance on the current designated spare transformer was not brought to light by Mr. Colomb in his Exhibit EN-MJC-2, in which he stated only that if the designated spare transformer was pressed into service, a business decision would be made at that time as to whether a replacement should be procured. Exh. EN-MJC-2 at 11.

due to the limited capacity of the designated spare, possible reductions in the shared RSA revenues, or the possibility of a long-term outage due to the long lead time necessary to procure a replacement, any CPG issued in this proceeding should contain the following condition:

> Petitioners shall maintain a spare transformer in ready status for prompt installation in the event the main transformer fails. Petitioners may either procure a full capacity replacement transformer prior to March 21, 2012, or may propose a ratepayer protection plan for Board review that will insulate ratepayers from the negative consequences of a reduction from the plant's rated capacity resulting from reliance on the current designated spare or a prolonged outage due to the inability to timely procure a full capacity replacement transformer.

The Board should also require Petitioners to maintain full-core discharge capacity throughout the extended operations period. Maintaining this capacity is important because if maintenance is needed that requires offloading the core, but there is insufficient space in the fuel pool, the plant will have to go off line not just for the period that maintenance would require, but for an additional period while Petitioners remove fuel from the pool to create the necessary capacity. Given the existence of the ISFSI, there is no reason why full-core discharge could not be maintained with some simple planning effort on Petitioners' part.

It is important for the Board to include this condition in a CPG because VY is not a rate regulated facility. If it was a rate regulated facility, the Board could protect ratepayers from the negative economic impacts of imprudent decision-making or poor planning by virtue of its authority over rates. No such authority exists over VY. Accordingly, in order to offer ratepayers in Vermont some protection against negative economic consequences[30] of poor planning or

[30] The negative economic impacts that could occur as a result of a shutdown due to lack of full-core discharge capacity include losses under the RSA during the first 10 years of extended operations, losses under a favorably priced

decision-making by Petitioners, the CPG must contain a requirement that will result in potential penalties if it is violated.

Witness Thayer has incorrectly stated that if such a requirement is put into place and the plant encounters a situation where full-core discharge could not be maintained due to circumstances beyond its control, then the plant may be forced to stop operating.[31] Mr Thayer is incorrect in his assessment for two reasons. First, VY can always petition the Board for a temporary waiver of the requirement, and if there was a compelling reason supporting the request the Department assumes such a request would be granted. Second, even if a waiver was not available, temporarily shutting down the plant would not avoid a violation of the requirement. Under a temporary shutdown, the plant is still in its extended operations period and subject to the requirements of the CPG. Shutting it down does not eliminate the lack of full-core discharge capability and Petitioners would be subject to penalties under 30 V.S.A. § 30. In fact, since harm to ratepayers is a factor to be considered in assessing penalties, shutting down the plant and its consequent negative economic impacts could actually be seen as an aggravating circumstance. 30 V.S.A. § 30(c)(1).

Accordingly, the Board should include the following condition in any CPG it issues in this proceeding:

Petitioners shall maintain full-core discharge capability throughout the period of

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PPA if one is negotiated, and according to Petitioners' own witnesses, an increase in regional wholesale prices without VY operating. *See*, Tranen pf. 3/3/08 at 8.

[31] Tr. 6/21/09 at 97-98, 100 (Thayer).

extended operations. In the event circumstances arise that are beyond Petitioners' control and which prevent maintenance of full-core discharge capability, Petitioners may file a request with the Board seeking a temporary waiver of this requirement. Such request shall be served on all parties who shall be allowed a period of comment prior to the Board rendering its decision on the request.

Lastly, it bears emphasizing that much of the economic benefit that can be expected from a VY extended operations period is premised on the plant operating for the full 20-year period, and at a level that is reflective of its historically high capacity factors. These anticipated benefits will be eroded if the plant does not continue to run reliably into the future, and would be virtually eliminated on a going-forward basis if there was a premature shutdown. Therefore, it is critically important that the Board adopt all of the Department's recommended conditions, and in particular those intended to ensure long-term reliable operation of the facility.

30 V.S.A. § 248(b)(5) aesthetics, historic sites, air and water purity, the natural environment and the public health and safety.

Findings

129. Continued operations at VY will not have an undue, adverse impact on the aesthetics of the region provided the existing mature vegetative buffer that provides visual screening of the cooling towers is maintained. Lamont pf. 2/11/09 at 18.

Discussion

The Board should include the following condition in any CPG issued in this proceeding:

Petitioners shall maintain the existing mature vegetative buffer that provides visual screening of the cooling towers.

30 V.S.A. § 248(b)(6) Consistency With Least-Cost Integrated Plan

Findings

130. The Petitioner is not required to have an approved least-cost integrated plan and this criterion is therefore inapplicable. 30 V.S.A. § 218c(a).[32]

30 V.S.A. § 248(b)(7) Consistency With the Department's 20-Year Plan

Findings

131. On July 9, 2009, the Department issued a 202(f) determination indicating that continued operation of the VY facility is consistent with the Department's 20-Year Electric Plan dated January 19, 2005.[33]

Discussion

Based on the preceding finding, continued operation of VY meets the requirements of 30 V.S.A. § 248(b)(7).

30 V.S.A. § 248(b)(9) Waste to Energy Facilities

Findings

132. The Project is not a waste-to-energy facility and this criterion is therefore inapplicable.

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[32] *See, Petition of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., for a certificate of public good to modify certain generation facilities at the Vermont Yankee Nuclear Power Station in order to increase the Station's generation output.* Docket 6812, Order of 9/8/04 at 103, finding 247.

[33] A copy of the Department's 202(f) determination is attached to this brief. The Department requests the Board take administrative notice of the issuance of this determination pursuant to 3 V.S.A, § 810(4).

30 V.S.A. § 248(b)(10) Existing or Planned Transmission Facilities

Findings

133. VY can continue to be served economically by existing transmission facilities without undue adverse effect on Vermont utilities or customers because no changes to existing facilities will be necessary for operations after March 21, 2012. Thayer pf. 3/3/08 at 28.

Discussion

Based on the preceding finding, continued operation of VY meets the requirements of 30 V.S.A. § 248(b)(10).

VI. 30 V.S.A. § 248(a)(2): PROMOTION OF THE GENERAL GOOD

Findings

134. Without a PPA with favorable pricing terms, no benefit can be assigned to purchase of plant output by Vermont utilities. Tr. 6/3/09 at 77 (Lamont).

135. As a nuclear generation facility, VY imposes unique burdens on the State of Vermont that are not easily quantified and assessed under the criteria of subsection (b) of section 248, but rather fall more appropriately under the concept of promotion of the general good of the state. Lamont pf. 4/24/09 at 5.

136. The unique burdens associated with hosting a nuclear plant include the need to accommodate storage of spent nuclear fuel at the site for an indefinite period of time,[34] the

[34] *See*, section IV.2.b. above.

need to develop and maintain an emergency response program, quality of life issues, and concerns over the eventual decommissioning and restoration of the site.[35] Id. at 4-5.

137. VY is also in a position to provide unique benefits because it is a nuclear generation facility. Those unique benefits include first and foremost a PPA with Vermont utilities with prices that are below market expectations. VY can do this because the New England market price is driven largely by fossil fuel prices which are generally higher than nuclear plant operational costs. Petitioners can also offer a contract with stable pricing characteristics, again because VY's operating costs are not linked to the fluctuations associated with the fossil fuel market. Such a contract would provide both stability and diversity to Vermont utilities' power portfolios. Petitioners could also offer a contract to Vermont utilities that contains substantially reduced or no counter-party credit terms, which make it difficult for Vermont utilities to enter into long-term contracts. Id. at 3-4.

Discussion

In order to obtain a Certificate of Public Good under 30 V.S.A. § 248, Petitioners must not only demonstrate compliance with each criterion under subsection (b), they must also demonstrate separately that continued operation of VY for an extended 20-year period will promote the general good of the State of Vermont. 30 V.S.A. § 248(a)(2); In re Twenty-Four Elec. Utils., 160 Vt. 227, 233 (1993) (recognizing public good and economic benefit as two separate criteria); Petition of UPC Vermont Wind, LLC, for a Certificate of Public Good,

[35] The burdens of decommissioning and restoration of the site will be mitigated if the Board orders as a condition of a CPG that the Departmentôs funding assurance plan for decommissioning, site restoration and spent fuel

pursuant to 30 V.S.A. §248, authorizing the construction and operation of a 52 MW wind electric generation facility, consisting of 26 wind turbines, and associated transmission and interconnection facilities, in Sheffield and Sutton, Vermont, Docket 7156 Order of Aug. 8, 2007 at 40 (recognizing that positive findings under subsection (b) criteria do not require a finding of promotion of general good).

Petitioners have failed to demonstrate that an extended period of operations for VY will promote the general good of the state under 30 V.S.A. §248(a)(2) because they have not produced any PPA for consideration by the Board, much less one with favorable rates, terms and conditions for Vermont utilities and their ratepayers.

Hosting a generating plant imposes certain burdens on the local community, the region and the state as a whole. Many of those burdens can be analyzed under the substantive criteria of subsection (b) of section 248. VY, however, as a nuclear generating facility imposes unique burdens that do not easily fit into any of those criteria. Moreover, the Board has recognized that even where burdens that are properly analyzed under subsection (b) criteria do not rise to the level of undue impact, they are burdens nonetheless and absent some specific benefit relevant to a particular project, the general good test will not be met. UPC Vermont Wind, 8/8/07 at 38-40 (discussing the unique ability of a wind project to offer contract pricing that is divorced from the fossil fuel driven New England wholesale electricity market). While the fuel costs of running a nuclear facility are not non-existent, as in the case of a wind project, they are not subject to the potentially severe price fluctuations of fossil fuels, and the operating costs of nuclear plants are

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management be put in place.

generally lower than the prices created by the fossil fuel driven New England market.

Any suggestion by Petitioners that VY cannot provide a price below long-term market expectations should be roundly rejected by the Board. As part of the Sale MOU, VY entered into a power contract with VYNPC that provides power to among other, CVPS and GMP. At the time the contract was entered into, the price was above-market.[36] Presumably, the remainder of the power would then be sold at market rates, which were below those in the PPA. Entergy must have taken all of this into account when entering into the sale transaction and concluded that even at those prices, purchasing and running the plant was an economically rational thing to do. Further, Entergy was willing to enter into the RSA, in which it shares 50% of plant revenue in excess of the strike price. The simple conclusion from this is that Entergy determined that operating VY at levels above the strike price would be so profitable, that it would be willing to simply give away 50% of the revenues above that standard. Accordingly, the Board should require that a favorably-priced PPA be made available to Vermont utilities before it makes an affirmative finding under 30 V.S.A. § 248(a)(2).[37]

Additionally, the Board should reject any suggestion by VY that the RSA as it exists, or that monetizing the RSA's expected value to create a lower priced PPA, is sufficient value to preclude the need for a favorably-priced PPA. The value of the RSA was already part of the calculus that led to a determination of general good in Docket 6545 because it was part of the

[36] Tr. 6/3/09 at 86 (Lamont).

[37] To be clear, the Department does not support issuance of a CPG subject to a condition that a PPA ultimately be negotiated. No CPG should issue until a satisfactory contract is available to all Vermont utilities.

Sale MOU which the Board relied on in making its determination. In short, its value has already been taken into consideration and looking at it again with respect to the general good criterion would be double-counting. As witness Thayer acknowledged, the obligations under the RSA exist already by virtue of their review and approval in Docket 6545.[38] Therefore, a PPA is a question that stands apart from the existence of the RSA and that prior agreement should not be allowed to cloud the waters of the current analysis.

Lastly, the Department asserts that implementation of all of its other recommended conditions are necessary for a determination of general good under subsection (a)(2). Those recommendations are designed to ensure that the plant operates reliably into and through a 20-year period of extended operations, and that proper planning and funding are in place to promptly decommission the plant, safely store spent fuel, and restore the site to a condition appropriate for redevelopment consistent with local and regional planning goals. Without implementation of the Department's recommendations, and without a favorably priced PPA available to all Vermont utilities, the Board should decline to issue Petitioners the requested authority for an extended operations period for VY.

[38] Tr. 5/21/09 at 66-67 (Thayer).

VII. ADDITIONAL ISSUES

1. **Statewide sharing of the RSA revenues**.

Findings

138. The RSA provides for payments of shared excess revenues to VYNPC. Exh. DPS-9 at 4.

139. The Public Service Board approved the terms of the Sale MOU, including the RSA and its specific payment provisions. Tr. 6/3/09 at 143 (Lamont). See also, Docket 6545, Order of 6/13/02 at 163.

140. There are currently three owners of VYNPC, Central Maine Power Corporation, CVPS and GMP. CVPS and GMP together own 92.5% of VYNPC while Central Maine Power owns 7.5% Lamont pf. 2/11/09 at 12. The RSA revenues would presumably be distributed to them as the owners of VYNPC. Tr. 6/3/09 at 141-42 (Lamont).

141. The RSA was included in the sale transaction as a means to capture value for the selling entities should the future value of the plant prove to be higher than what was reflected in the purchase price, which was based on assumptions made at the time of the sale. Accordingly, it was designed to mitigate the risks undertaken by the selling entities in accepting a certain price for the plant. Tr. 6/3/09 at 85-86, 137 (Lamont); Lamont pf. 2/11/09 at 11.

142. Between them, CVPS and GMP serve approximately 80% of Vermont's retail electric customers. Tr. 6/3/09 at 143 (Lamont).

Discussion

The Board should decline to modify the terms of the previously approved RSA because no party has presented a valid, regulatory reason for its modification.

In Docket 6545 the Board approved the sale of VY from VYNPC to ENVY. While the terms and conditions of the sale were many, three in particular are relevant to the discussion before the Board: 1) the sale PPA; 2) the RSA; and, 3) the sale price. These three items together were designed to interact so that the ratepayers of VYNPC's owners would not be unduly harmed by the sale of the plant in the event assumptions about the plant's value were mistaken, and to affirmatively benefit those ratepayers. The PPA, which runs through 2012, contains a low market adjuster to protect ratepayers in the event the contract price proved excessively high. The RSA, which takes effect only during a relicensing period, was designed to capture excess value for the ratepayers of VYNPC's owners that might be realized in an extended operations period that was not properly captured in the third item, the original sale price. In that sense, the RSA can be viewed as a proxy for a higher sales price to VYNPC's owners once the plant's future value in terms of both extended operations and revenues from its output became clear. The RSA was quite simply never intended to create a cash flow for general distribution among non-owners of VYNPC and there is no basis for amending the Board-approved agreement.

Additionally, the Board should reject any argument that the economic benefits of the RSA will be improved by virtue of wider sharing. First, CVPS and GMP serve approximately 80% of Vermont's retail ratepayers. By definition, the RSA dollars will already be spread throughout the majority of the state. Further, sharing the money more broadly does not increase the economic

value because the same amount of money would be injected into the Vermont economy regardless of how it is shared.[39]

Lastly, if the Board were to modify the terms of the existing agreement, it would send inappropriate signals to utilities. It would suggest that individual utilities with the foresight to enter into beneficial contracts that save their ratepayers money would find that contracted-for value at risk for sharing with ratepayers of other utilities that have not managed their businesses as prudently. Instead, the Board should leave the payment terms of the RSA in place and send a signal to all Vermont utilities that provides an incentive to operate their businesses on behalf of their ratepayers with foresight and responsibility.

2. Additional Conditions.

A. Decommissioning, spent fuel management and site restoration.

The Board should include the following additional conditions to ensure timely and accurate information is available regarding the costs and funding for decommissioning, spent fuel management and site restoration:

> The next updated decommissioning cost estimate for VY shall include the cost for cleanup to the enhanced level of 10mrem/year TEDE from all pathways including within that 4mrem per year for the groundwater pathway. The decommissioning cost estimate should also eliminate backfilling or replacement of demolition concrete from the site and should include the cost of removal and shipment of the demolition concrete to an appropriate facility for disposal.
> Petitioners shall report to the Board and to the Department the status of the decommissioning funds and the latest NRC calculation of such responsibility at the

[39] One could argue that spreading the money over an increased amount of utility customers would reduce its effects because each customer would receive a more diluted portion of the benefits and may therefore be less likely to create value added impacts to the Vermont economy.

same time as such report is required by the NRC. Petitioners will make this information available to the public and participate in a public discussion of the results at a forum to be determined in conjunction with the Department. Petitioners will provide to the Department semi-annual reports of the decommissioning trust fund status, as reported to Entergy by the fund's managers. Petitioners will make available to the Department an appropriate Entergy Corporation employee or affiliate/subsidiary employee to answer questions about such reports. From time to time, the Department may require more frequent reporting of the decommissioning fund value pursuant to 30 V.S.A. § 206. Nothing in this condition would preclude such requests.
Petitioners shall update the site-specific decommissioning cost study at least once every 5 years with the first of these studies due to be completed no later than March 30, 2012, and submit the results to the Board and the Department. The next decommissioning cost study for VY must include costs for site restoration activities required by this Order. Following completion of each decommissioning study, Petitioners shall (i) inform the public of the estimated cost of decommissioning which resulted from the analysis and (ii) participate in a public discussion of the results at a forum to be determined in conjunction with the Department.

Petitioners shall obtain Board approval in the event they request disbursement of funds from Petitioners' Qualified Decommissioning Trust Fund or Non Qualified Decommissioning Trust Fund other than (i) for purposes of decommissioning VY, (ii) for payment of administrative expenses or (iii) for distribution of funds upon completion of decommissioning.

At the conclusion of complete decommissioning as certified by the State of Vermont and the U.S. Nuclear Regulatory Commission, any funds remaining in the decommissioning trust fund that were in the fund at the time of the Board's final order in this docket, or interest upon that fund, shall be split 55% proportionately to Green Mountain Power Corporation and Central Vermont
Public Service Corporation to the benefit of GMP's and CVPS' ratepayers, and 45% to Petitioners. If Petitioners add new funds to the decommissioning trust fund pursuant to this order or otherwise, those contributions will be accounted for separately and will not be subject to this sharing provision.

B. DPS right of inspection.

The Board should require that Petitioners continue to maintain the Department's right of inspection as established in a memorandum of understanding (Inspection MOU), a copy of which

was submitted into evidence as Exhibit DPS-UV-3. The Inspection MOU provides for daily telephone notification of plant activities from the Vermont Yankee Liaison Engineer, entry and unescorted Department of Public Service access to the plant, office space at the plant, and access to Vermont Yankee documents. Any CPG issued in this proceeding should be conditioned upon negotiation of a new Inspection MOU between DPS and Petitioners similar to the one now in place. The new Inspection MOU should apply throughout extended operations, decommissioning, site restoration and removal of all spent fuel from the site.

C. Site boundary dose limitation.

The Board should require Petitioners to continue to meet their commitment and comply with the Vermont Department of Health site boundary dose limitation. Accordingly, the following condition should be included in any CPG issued in this proceeding:

> Petitioners shall comply with the site boundary dose limit for direct gamma radiation established by the Vermont Department of Health (VDH) in Part 5, Chapter 3 of its regulations during the period of continued operation for which it seeks approval from the Board, as well as during the decommissioning of the nuclear station.

D. Miscellaneous prior commitments and conditions.

The Board should include the following miscellaneous items as conditions in any CPG issued in this proceeding. All but one have arisen in a variety of Dockets concerning Entergy, Petitioners and VY since the purchase in 2002. They should be included to remove any uncertainty about what is expected of Petitioners, and any possible successors and assigns should the Enexus transaction or some other sale of assets occur, during an extended period of operations.

Petitioners shall continue to file with the PSB and DPS a copy of the Post Shutdown Decommissioning Activities Report ("PSDAR") which they have previously pledged to prepare and maintain in the event of an unexpected shutdown. Petitioners shall update the PSDAR, once a year and file the update with the PSB and DPS.[40]

Petitioners shall notify the DPS and PSB of intent to change any provision of the trust agreement at least 30 days in advance of such a change.[41]

Petitioners shall continue to notify the PSB and DPS as to the status and amounts of guaranties of Entergy Corporation that are outstanding at the time of the notification. Beginning on January 1, 2012, such notice may be made every 12 months.[42]

Any amendments to Petitioner's NRC license for VY shall be filed with the PSB and DPS.[43]

Any FERC filings related to Petitioners' VY rates that are subject to FERC jurisdiction under Section 203 of the Federal Power Act shall be filed with the PSB and DPS.[44]

Any filing with respect to Petitioners' Exempt Wholesale Generator Status shall be filed with the PSB and DPS.[45]

Petitioners shall comply with the terms of the RSA as set forth in paragraph 4 of the Sale MOU.[46]

Petitioners shall notify the PSB and DPS if they no longer have access to a

[40] Docket 6545 Order of 6/13/02, ordering clause 12; CPG ¶ 5.

[41] Docket 6545 MOU at ¶ 8.

[42] Docket 6545 Order of 6/13/02, ordering clause 9; CPG ¶ 1.

[43] Docket 6545 CPG ¶ 6.

[44] Docket 6545 CPG ¶ 7.

[45] Docket 6545 CPG ¶ 8.

[46] Docket 6545 MOU at ¶ 4.

low-level nuclear waste disposal facility or if the facility is no longer expected to have sufficient capacity for the VY waste.[47]

The terms and conditions set forth in this CPG shall inure to and be binding upon any successor or assign of Petitioners. Nothing in this condition shall be construed to exempt Petitioners, or any successor or assign of Petitioners, from obtaining Board approval under applicable Vermont statutes prior to a transfer of any rights or obligations set forth herein or in the order accompanying this CPG.

3. **The VPIRG request for administrative notice**.

a. The NAS Report

The Department has no objection to the admission of the NAS report tendered by VPIRG as Exhibit VPIRG-1.[48] The Department does not challenge the authenticity of the document in question and believes it is eligible for admission pursuant to 3 V.S.A. § 810(1).

b. The Beyea Report

The Department does not object to the admission of the document referred to as the Beyea report, tendered by VPIRG as Exhibit VPIRG-2,[49] ***for the limited and sole proposition that if there was a loss of coolant in the spent fuel pool, and if that loss of coolant resulted in a fuel pool fire, that there would exist the potential for severe negative economic impacts as a result.*** The Department believes that the Board may properly take notice of this proposition pursuant to 3 V.S.A. § 810(4) as a generally recognized scientific or technical fact within the Board's specialized knowledge.

[47] Docket 6812 CPG ¶ 8.

[48] Tr. 6/3/09 at 14.

[49] Tr. 6/3/09 at 22.

The Department objects to any further use of the Beyea report, for example to establish a specific number or range of numbers for economic impacts, to establish the likelihood of a terrorist attack to the fuel pool or the probability that an attempted attack would result in damage to the fuel pool or a fuel pool fire.

First, and leaving aside questions of authentication, the Beyea report does not qualify under 3 V.S.A. § 810(1) because there has been no showing that the facts in the report are not reasonably susceptible of proof under the Vermont Rules of Evidence. The author of the report, Dr. Jan Beyea, is employed by a for-hire consulting firm called Consulting in the Public Interest. The firm is available for a fee to provide services to not-for-profits, universities, government, and injured plaintiffs.[50] VPIRG has not established the unavailability of Dr. Beyea as a witness to sponsor his own report or provide testimony directly establishing the facts VPIRG now seeks to admit in the report. Additionally, it is less than clear that the report is the type of material that reasonably prudent people would rely on the in the conduct of their affairs. 3 V.S.A. § 810(1). Dr. Beyea is an expert witness that may be hired for a fee to achieve certain ends for his clients. While VPIRG might wish to rely on the contents of the report, prudent people could disagree on whether such reliance, particularly without the opportunity for discovery or cross examination, is a reasonable thing to do.

Second, the more specific facts in the report fail to qualify under 3 V.S.A. § 810(4) because they are not generally recognized scientific or technical facts within the Board's

[50] Exhibit VPIRG-2 at Declaration of Dr. Jan Beyea, ¶ 1. *See, also* http://www.cipi.com/services.shtml.

specialized knowledge. 3 V.S.A. § 810(1). For example, the Board has no specialized knowledge about the likelihood of terrorist attacks, or if an attempt was made whether it would be successful. As to the specific economic numbers calculated by Dr. Beyea, absent discovery and cross examination, there is no basis to judge their accuracy because the Board does not possess independent specialized knowledge of such matters.[51]

4. An Interim Decision by the Board

30 V.S.A. §248(e)(2), states that the Board ñmay not issue a final order or certificate of public goodò for continued operation of Vermont Yankee ñuntil the general assembly determines that operation will promote the general welfare and grants approval for that operation.ò The statute is specific that it is a ñfinalò order that cannot be issued, and does not prohibit a draft or interim order from being issued. Moreover, the Board has issued guidance documents in other cases. For instance in Docket 6300,[52] the Board issued the ñConclusionò section of the order it had prepared but was not going to issue. The Board was clear in that instance that the released Conclusion was not legally effective but provided scoping and areas of concern. It was helpful to the parties in understanding the issues just as an interim order would assist the Legislature.

The Department believes that the issuance of an interim order would provide an

[51] If the report was properly sponsored by Dr. Beyea so that discovery and cross examination were available, the Department believes the Board has the expertise necessary to reach an informed conclusion. However, absent such process and the additional information it provides, the Department is unaware of any specific expertise at the Board which would allow it to assess the reliability of the specifics in the Beyea report without them first being tested through contested case processes.

[52] Docket 6300, *Investigation into General Order No. 45 Notice filed by Vermont Yankee Nuclear Power Corporation re: proposed sale of Vermont Yankee Nuclear Power Station and related transactions*

additional[53] but comprehensive document for consideration by members of the General Assembly. Certainly it would not detract in any way from the Legislatureôs ultimate authority on the issue of continued operation, but instead would provide additional information marshaled in an organized and systemic way in relation to the statutory criteria of Title 30.

VIII. CONCLUSION

For the reasons set forth in the above brief, the Board should conclude that Petitioners have failed to meet their burden of demonstrating that continued operation of VY would promote the public good and deny Petitioners' requested relief. In the event the Board concludes otherwise, it is imperative that the Board adopt all of the recommended conditions described in this brief to ensure that there are no undue impacts to the public interest as a result of extended operations.

Dated at Montpelier, Vermont this 17th day of July, 2009.

VERMONT DEPARTMENT OF PUBLIC SERVICE

By:_____
Sarah Hofmann, Director for Public Advocacy
John Cotter, Special Counsel

cc: Service list

[53] The General Assembly has already amassed a great deal of material and has hired consultants to assist it in processing that material.